Using Configuration and Options in .NET Core and ASP.NET Core Apps

GETTING STARTED WITH CONFIGURATION CONCEPTS

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ASP.NET Core 3.0

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ASP.NET Core 1.0

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Overview

How configuration is structured

Defining JSON configuration

Accessing configuration at runtime

- Accessing by key
- Accessing by section
- Binding configuration

Overriding configuration by environment

Before We Begin

Follow along: Download the solution from the exercise files

The solution relies on the .NET Core 3.0 SDK

I’m using Visual Studio 2019 (16.3.x)

Application Configuration in .NET Core

What Is Configuration?

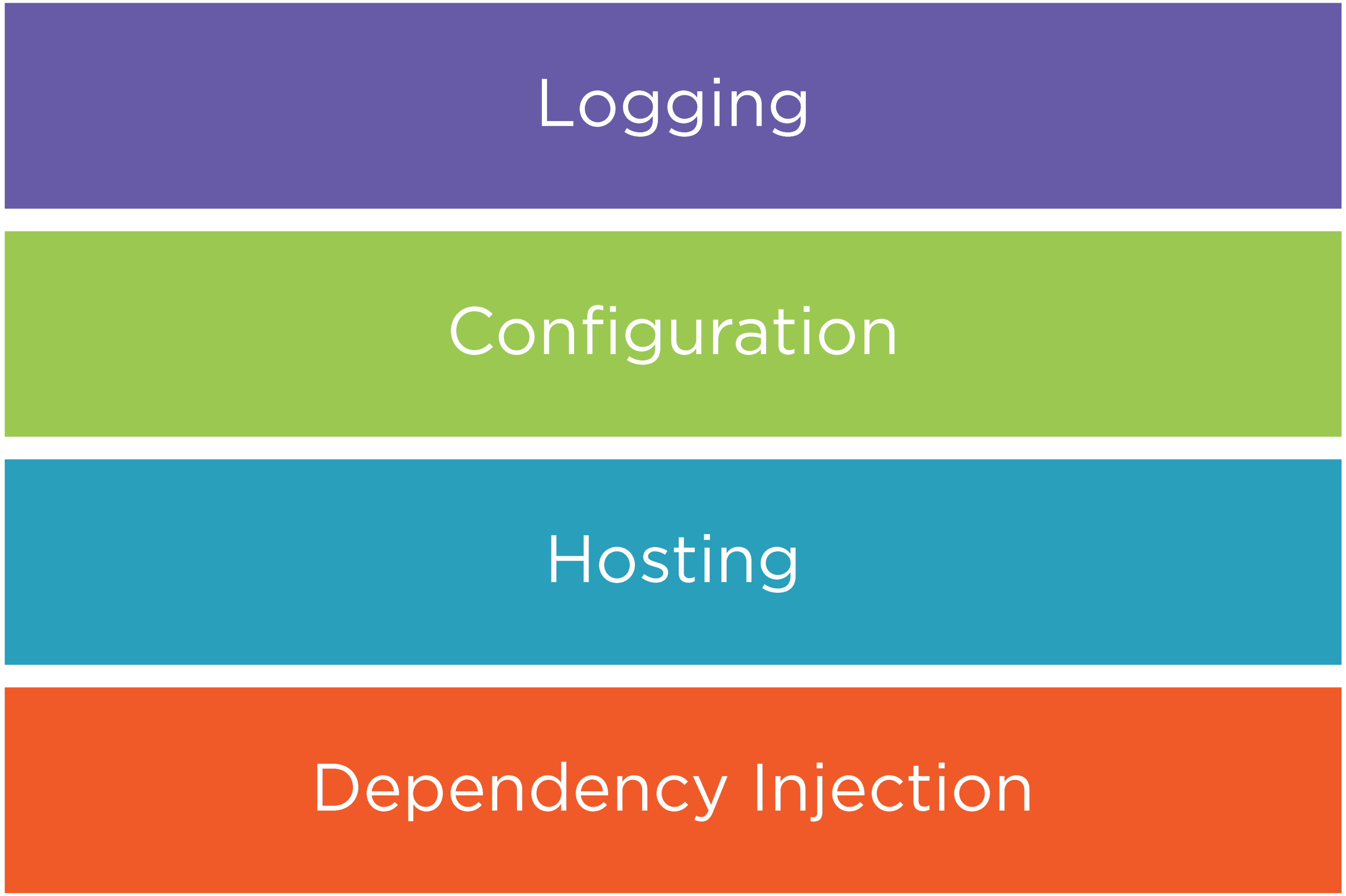
Provides initial settings for an application

Supports changing behaviour without recompilation

Defined in one or many sources

Accessed at runtime to control application behaviour

Configuration in .NET Core



Logging

Configuration

Hosting

Dependency Injection

Microsoft.Extensions.Configuration

Logical Configuration Structure

```
MyStringKey = “This is a string value”
MySecondStringKey = “This is another value”
MyBooleanKey = true
MyIntegerKey = 100
```

Configuration Hierarchy

```
Section1:KeyA = “My 1st value”
Section1:KeyB = “My 2nd value”
Section2:SubSection:KeyA = “And another!”
```

Introducing the Tennis Booking Application

Demo

Getting started with configuration

Configuration in JSON files

Default configuration values

Defining additional configuration values

Demo

Accessing configuration at runtime

- Injecting and consuming configuration
- Conditionally rendering content

Demo

Accessing sections of configuration

Accessing string configuration values

Demo

Accessing configuration at startup

Conditionally registering services

Downsides of Using IConfiguration Directly

Problems with Getting Values

Repetitive code

Fragile naming

Can lead to bugs

Demo

Binding configuration to objects

Demo

Loading configuration per environment

- Overriding development configuration

Per Environment Configuration

Development

cs=“Server=(localdb)\\mssqllocaldb;
Database=TennisBookings;”

Production

cs=“Server=ProdDbServer;
Database=TennisBookings;”

Review

Structure of configuration

Defining configuration in a JSON file

Accessing configuration at runtime

Binding configuration to an object

Loading configuration per environment